

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Docket Number (Optional)

1454.1610

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on \_\_\_\_\_

Signature \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Application Number

10/532,346

Filed

April 22, 2005

First Named Inventor

Elena COSTA

Art Unit

2617

Examiner

Jaime M. Holliday

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

/Richard A. Gollhofer/

☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

Signature

Richard A. Gollhofer

Typed or printed name

☒ attorney or agent of record.  
Registration number 31,106

202-434-1500

Telephone number

☐ attorney or agent acting under 37 CFR 1.34.

November 26, 2010

Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.  
Submit multiple forms if more than one signature is required, see below.

☒ \*Total of 1 forms are submitted.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:

ELENA COSTA et al.

Serial No. 10/532,346

Group Art Unit: 2617

Confirmation No. 3925

Filed: April 22, 2005

Examiner: Jaime Michele Holliday

For: METHOD FOR RADIO SYSTEM RESOURCE MANAGEMENT

**ARGUMENTS IN SUPPORT OF PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Attention: **Mail Stop AF**

Sir:

In the Office Action mailed August 26, 2010, the Examiner noted that claims 15-29 are pending in the application and were rejected under 35 U.S.C. § 103(a). In rejecting the claims, the following references were cited: U.S. Patents 5,726,978 to Frodigh et al.; 6,052,593 to Guimont et al.; 6,917,580 to Wang et al.; and 6,990,348 to Benveniste and U.S. Patent Application Publications 2002/0082016 by Obayashi; 2002/014017 by Li et al. and 2004/001429 A1 by Ma et al.

In item 2 on pages 4-9 of the August 26, 2010 Office Action, claims 15, 16, 18-20, 27 and 28 were rejected under 35 U.S.C. § 103(a) as unpatentable over Guimont et al. in view of Benveniste. In rejecting the claims, it was asserted that "allocating the sub-carriers to the radio cells, to make the sub-carriers available during a first time period to each radio cells (sic) for transmission of information" (August 26, 2010 Office Action, page 4, lines 9-10) and "allocating the sub-carriers to the radio cells, the sub-carriers being allocated by assigning each of the sub-carriers only to a subset of the radio cells including at least two radio cells for transmission of the information" (August 26, 2010 Office Action, page 4, lines 11-13) were disclosed in the Abstract, Fig. 1 and column 4, lines 19-40 of Guimont et al. Furthermore, it was asserted the only limitation recited in claim 15 not taught by Guimont et al. was "that the sub-carriers are allocated during different time periods" (August 26, 2010 Office Action, page 4, lines 19-20).

However, the quotations above from lines 9-13 on page 4 of the August 26, 2010 Office Action do not contain all of the limitations recited in claim 15 and the missing limitations amount to more than merely "that the sub-carriers are allocated during different time periods" as stated in the August 26, 2010 Office Action. Claim 15, requires that the allocating of "the sub-carriers to the radio cells, to make the sub-carriers available during a first time period to each radio cell" (as amended herein) is performed **"temporarily during ... [the] first time period"** (claim 15, line 4, emphasis added) prior to "allocating the sub-carriers to the radio cells during a second time period, the sub-carriers being allocated by assigning each of the sub-carriers only to a subset of the radio cells" (claim 15, lines 7-8). An example of the first time period provided in paragraph [0035] of the Substitute Specification is "a first OFDM frame."

As discussed in the Appeal Brief filed November 23, 2009, Fig. 1 of Guimont et al. illustrates the cells 10 being grouped in clusters of cells 12. Each cluster 12 uses all the available frequencies (subsets A to G) while any single cell 10 of a cluster uses only a subset (e.g. subset A) of the available frequencies (see, column 4, lines 7-40). Thus, within the cluster the base stations do not interfere because they use different frequencies. Although in Guimont et al., the allocation of the frequencies may be changed, such a change occurs only when an alternative allocation is judged to be beneficial. Otherwise, the allocation may be maintained indefinitely. A change of the allocation of the frequencies is not an event occurring after or at predetermined times. Thus, no allocation of the frequencies is ensured of being performed **"temporarily during a first time period"** as required on line 4 of claim 15.

The August 26, 2010 Office Action attempted to overcome the deficiencies of Guimont et al. by citing Fig. 2 and column 6, lines 5-10 of Benveniste as disclosing

temporarily during a first time period allocating the sub-carriers to the radio cells (during initialization phase {*first time period*}, each cell is assigned a control channel and at least one traffic channel [fig. 2, col. 6 lines 5-10]) and allocating the sub-carriers to the radio cells during a second time period (... selectively reassigning channels to the base station based on said improved re-use criteria [fig. 2, col. 10 ...lines 9-34]).

(August 26, 2010 Office Action, page 4, last line to page 5, line 7). It was asserted that it would be obvious to combine these teachings in Benveniste with those in Guimont et al. "to selectively reassign channels to a call after initial allocation ... to efficiently create or revise a frequency plan" (August 26, 2010 Office Action, page 5, lines 9-11).

It is submitted that Benveniste does not clearly support the assertions of the Examiner. There are statements qualifying the reassignment, e.g., "[i]f there are enough RF frequencies available to provide the necessary channels without the need for re-use, the derivation of re-use criteria can be by-passed" (column 6, lines 9-12) and "[t]he initialization phase can be by-passed

when expanding a wireless system if there exist sufficient RF frequencies to assign as control channels to the newly added base stations without ... interference to, or ... from, existing base stations" (column 6, lines 13-18). Furthermore, as stated in the June 16, 2010 Amendment, Figure 2 of Benveniste clearly shows that the "improved channel re-use criteria" (block 2700) is based on "signal-to-interference ratios and/or signal attenuation" (block 2600) and thus, "[s]electively re-assign[ing] channels" (block 2800) will only occur if signal-to-interference ratios and/or signal attenuation indicates that an improvement can be made. Thus, like Guimont et al., Benveniste does not disclose a specified period during which allocation of the sub-carriers to the radio cells is temporary, as required by claim 15.

The preceding arguments were made in the June 16, 2010 Amendment. The only response to these arguments in the August 26, 2010 Office Action was that they contained "just a general statement that summarizes the limitation not taught, which is then clearly taught by the secondary reference" (August 26, 2010 Office Action, page 2, lines 11-12). It is submitted that this is merely a restatement of the Examiner's opinion and does not rebut the arguments made above by showing why they are incorrect or by citation to where the prior art discloses something that contradicts what is cited in the preceding paragraphs. Therefore, it is submitted that claim 15 patentably distinguishes over Guimont et al. in view of Benveniste for the above reasons.

Furthermore, as noted in the in the June 16, 2010 Amendment, nothing has been found in Guimont et al. and Benveniste suggesting that the revised assignment of channels meets the limitation of "assigning each of the sub-carriers only to a subset of the radio cells **including at least two radio cells**" (claim 15, last 2 lines, emphasis added). No mention has been found in either reference **requiring** that each subset have at least two radio cells. The Response to Arguments section of the August 26, 2010 Office Action responded to the arguments in the preceding paragraph by noting that Guimont et al. teaches

available frequencies in the cellular frequency band ... are divided in accordance with the frequency plan (allocated) into **frequency groups 14 (sub-carriers)**, with the **frequency groups** assigned amongst the **cells** 10 of each **cluster 12 (sub-set of cells ... {see items 12 and 14; the E subset is assigned to two cells})**"

(August 26, 2010 Office Action, page 2, line 20 to page 3, line 2, emphasis in original) citing the Abstract, Fig. 1 and column 4, lines 19-40 of Guimont et al.

It is unclear to Applicants why the Examiner believes that the statement at page 2, line 20 to page 3, line 2 of the August 26, 2010 Office Action rebuts the argument in the preceding paragraph. Applicants admit that Fig. 1 of Guimont et al. illustrates two full clusters of seven cells, e.g., 10(1) through 10(7), where the same subset of frequencies, e.g., sub-frequency groups B(1) through B(n), are assigned to one cell in each cluster, so that there are seven sub-

frequency groups, A through G, in each of the two fully labeled clusters illustrated in Fig. 1. However, Fig. 1 of Guimont et al. merely illustrates that one (or more) sub-carrier has been assigned to multiple cells which is insufficient to meet the limitation recited on the last three lines of claim 15. To make that limitation obvious, the prior art must teach or suggest that there is **always** an assignment of each sub-carrier to more than one cell. Thus, it is submitted that claim 15 patentably distinguishes over Guimont et al. and Benveniste for this additional reason.

Claims 16 and 18-20 depend from claim 15 and therefore, it is submitted that claims 16 and 18-20 patentably distinguish over Guimont et al. and Benveniste for at least the reasons discussed above with respect to claim 15.

Claim 27 recites

assigning the sub-carriers of the at least one frequency band to said at least two radio cells during a first time period to make all of the sub-carriers temporarily available to each radio cell for transmission of information, and ... during a second time period temporarily each of the sub-carriers is available to a subset of the at least two radio cells

and claim 28 recites

temporarily assigning the sub-carriers of the at least one frequency band to the at least two radio cells during a first time period so that the sub-carriers are temporarily available to each radio cell for the transmission of the information; and ... temporarily assigning the sub-carriers of the at least one frequency band among the at least two radio cells during a second time period so that each of the sub-carriers is temporarily available to a subset of the at least two radio cells

For reasons similar to those discussed above with respect to claim 15, it is submitted that claims 27 and 28 patentably distinguish over Guimont et al. and Benveniste.

In item 3 on page 10 of the August 26, 2010 Office Action, claim 17 was rejected as unpatentable over Guimont et al. and Benveniste and further in view of Wang et al. In item 4 on pages 10-12 of the August 26, 2010 Office Action, claims 21 and 22 were rejected as unpatentable over Guimont et al. and Benveniste and further in view of Li et al. In item 5 on page 12 of the August 26, 2010 Office Action, claim 23 was rejected as unpatentable over Guimont et al., Benveniste and Li et al. and further in view of Frodigh et al. In item 6 on pages 13-14 of the August 26, 2010 Office Action, claims 24 and 25 were rejected as unpatentable over Guimont et al., Benveniste and Frodigh et al. and further in view of Obayashi. In item 7 on pages 14-15 of the August 26, 2010 Office Action, claims 26 and 29 were rejected as unpatentable over Guimont et al. and Benveniste and further in view of Ma et al. (although "claim 25," not "claim 29," appears on line 1 of page 15, this is apparently a typographical error, since the limitations of claim 29, not claim 25 were discussed).

Claim 17 depends from claim 15 via claim 16; claims 21, 22, 26 and 29 depend from claim 15; and claims 23-25 depend from claim 15 via claims 21-23. Nothing has been cited or found in Wang et al., Li et al., Frodigh et al., Obayashi or Ma et al. suggesting modification of Guimont et al. and Benveniste to overcome the deficiencies discussed above with respect to claim 15. Therefore, it is submitted that claims 17, 21-26 and 29 patentably distinguish over Guimont et al., Benveniste, Wang et al., Li et al., Frodigh et al., Obayashi or Ma et al. for at least the reasons discussed above with respect to claim 15.

For the above reasons, it is submitted that claims 15-29 patentably distinguish over Guimont et al., Benveniste, Ma et al., Wang et al., Li et al., Frodigh et al. and Obayashi.

If there are any additional fees associated with filing of this Pre-Appeal Brief Request for Review, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: November 26, 2010

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